

**Joint MPH Program**

**University of Gondar and Addis Continental Institute of Public Health**

**Assessment of Awareness and Practice of Pregnancy Related Risks among  
Antenatal care Clients in Addis Ababa**

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**A THESIS SUBMITTED TO THE SCHOOL OF PUBLIC HEALTH, UNIVERSITY  
OF GONDAR, IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR  
THE DEGREE OF MASTER'S IN PUBLIC HEALTH**

**May 2011**

## **Acknowledgment**

First, I would like to thank University of Gondar and Addis Continental Institute of Public Health for realizing this program.

I am very grateful to my advisor Mss. Ewenat Gebrehanna for her unreserved guidance and constructive suggestions and comments throughout the process of my study

I would like to extend my acknowledgment to Addis Ababa regional health bureau and health facilities for the cooperation in facilitating the data collection process

Lastly, my acknowledgment goes to the data collectors for their unreserved work in gathering the data and study participants for their dedication in providing the data required for the study

## **ABBREVIATIONS**

**ANC:** Antenatal care

**AOR:** Adjusted odds ratio

**COR:** Crude odds ratio

**DHS:** Demography and Health Survey

**FANC:** Focused Antenatal Care

**HSDP:** Health sector development program

**MCH:** Maternal and child health

**RH:** Reproductive health

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## **Abstract**

### **Background**

Increased knowledge and awareness of pregnant women on pregnancy related risk is essential to prevent maternal death. Two third of pregnant women attending the antenatal clinic nationally and one third in Addis Ababa region were not informed on pregnancy danger signs and about available hospital referral system while attending the service.

**Objective:** To assess Awareness and Practice on pregnancy related complications among pregnant women attending antenatal clinic in Addis Ababa.

### **Methodology**

A cross-sectional study conducted among pregnant women in Addis Ababa. Stratified sampling and then simple random sampling was used. Pre-tested structured written questionnaire used to collect data. Data entered and cleaned using EPI INFO 3.5.1 statistical software and exported to SPSS version 16.0 for analysis.

### **Results:**

Only two third (68.6%) was informed on pregnancy related complications during their ANC visits. Clients attended at public health facilities for antenatal care were eight times more informed than those who had follow up on private health facilities.

### **Conclusion /Recommendation**

The study results showed that antenatal care service providers as whole and private clinics in particular do not routinely provide information and advice to antenatal care clients on pregnancy complications as part of antenatal care. In order a pregnant women to make timely decisions for seeking care when a complication arises every antenatal care service providers should inform each client on pregnancy related danger signs at her early first antenatal visit.



## **1. INTRODUCTION**

### **1.1 PROBLEM STATEMENT**

Focused Antenatal care (FANC) is a care provided to pregnant women with the goals of identification of pre existing health conditions, health promotion and disease prevention, early detection of danger signs (Anemia, infection, vaginal bleeding, pregnancy induced hypertension, abnormal fetal growth and abnormal fetal position after 36 weeks,) and birth preparedness and complication readiness plan. (1)

Reducing maternal mortality was one of the three core component of Ethiopian Health Sector Development Program III and improving maternal health is the fifth Millennium Development Goal that our country is tend to achieve. (2)

One of the suggested strategies on the Ethiopian reproductive health strategy to prevent maternal death is to transfer knowledge and life skill to pregnant woman and families on danger signs. However, most (69%)of pregnant women attending the antenatal clinic nationally and more than one third(37.2%) in Addis Ababa region were not informed on danger signs and about available hospital referral system while attending the service. (2, 3)

In Ethiopia 673 mothers dying among 100, 000 live birth during pregnancy, child birth and post partum. And it has been estimated that 25 % of mothers die due too sever bleeding and 12% due to eclampsia (2, 3).

Empower women men family and community to recognize pregnancy related risks and to take responsibility for developing and implementing appropriate response to them and increased

knowledge and awareness is essential for reducing delays in seeking health care and in reaching health facility (3).

According to Federal Ministry of Health report for 2001 and 2002 EFY; antenatal care coverage was above 100% for Addis Ababa. Despite of high coverage of antenatal care service there were missed opportunities to inform women attending the service on danger signs. (4, 13)

## **1.2 RATIONALE OF THE STUDY**

This study tried to identify gaps in awareness and practice of pregnant women on pregnancy related danger signs attending antenatal care service in Addis Ababa. The result of the study can be used to evaluate changes through time and also as a source of information to Maternal health interventions in addition to the works done before. Result of the study can also be used to measure changes through time and as a source of information to some interventions in addition to the works done before. Might also show the potential areas of further research.

## **2. LITERATURE REVIEW**

A focused antenatal care is goal oriented care provided to a pregnant woman during the life of pregnancy. It is an essential intervention that includes identification and management of obstetric complications. Increased knowledge and awareness of pregnant women on pregnancy related risk is essential to prevent maternal death. (1)

Pregnancy related complication are conditions that a pregnant women can face any time during pregnancy and child birth that causes or may be indicative for life threatening conditions. According to focused antenatal care (FANC) guidelines, pregnancy related danger signs include vaginal bleeding, severe headache or blurred vision, severe abdominal pain, swollen hands and face, fever; baby stopped or reduced movement, and excessive tiredness/breathlessness (2).

At least 40 % of pregnant women experience complications during pregnancy and child birth globally. In Africa life time risk of women dying during pregnancy or child birth is 1 to 16 and 25% of maternal deaths are estimated to occur during pregnancy. In 2005 it was estimated that of more than 500 000 maternal deaths worldwide, more than half occurred in sub-Saharan Africa (1, 2).

Between 30 to 50% of maternal death are due to causes such as hypertension (pre eclampsia and eclampsia), and Ante partum hemorrhage (2, 3). In Ethiopia maternal mortality is high, more than 1 to 5 deaths to women aged 15 – 49 are attributed to pregnancy or pregnancy related causes. And it has been estimated that 25 % of mothers die due too sever bleeding and 12% due to eclampsia (1, 3).

A cross-sectional, cross-country analysis performed on data from the most recent Demographic and Health Surveys (DHS) of 19 countries of sub-Saharan Africa on the probability of receiving information and delivering in a health center indicate that, pregnant mothers that can recalled

information about potential complications of pregnancy during antenatal care was less than 50%.even though there was variation among the countries under study from 6% in Rwanda to 72% in Malawi. In 15 countries out of the 19 including Ethiopia, women reported receiving information on danger signs during antenatal care was less than 50%. (5)

As Ethiopian Demography and Health Survey (DHS) 2000 indicated 27% of pregnant mothers attended antenatal clinic were informed on danger signs nationally and pregnant mothers attended antenatal clinic that were informed on danger signs five years prior to demographic and health survey 2005 (2000 - 2005) were 31% nationally and 62.8% for Addis Ababa. (4)

Findings from a study done in urban health centre in Malawi showed that 60% of the participants were knowledgeable about obstetric complications in pregnancy. And the majority of the participants, 73% and 82.2% did not know of any problems that could occur during and after the birth of the baby respectively. Participants had limited knowledge of complications that may need immediate treatment during all three periods (8)

According to assessment on providers' counseling on pregnancy danger signs in Rufiji district, Tanzania, Two out of five (42%) clients were not informed of any pregnancy danger signs. The most common pregnancy danger sign informed on was vaginal bleeding 50% followed by severe headache/blurred vision 45%. The clients recalled less than half of the pregnancy danger signs they had been informed during the interaction. Only 8.7% clients were informed of all seven danger signs (6),

Another study done in Tanzanian on women's awareness on danger signs of obstetric complications showed, more than 98% of the women attended antenatal care at least once and only about 50% of the women knew at least one obstetric danger sign that can occur during pregnancy,

child birth and after delivery. The percentage of women who knew at least one danger sign during pregnancy was 26%, during delivery 23% and after delivery 40%. Only few women knew three or more danger signs that can happen any time from pregnancy, child birth and after (9).

Study in Gambia also showed 90% of the study subjects were attended antenatal clinic more than once. About 35% of pregnant women recalled they were informed or educated on diet and nutrition, 30.4% on care of the baby, 23.6% on family planning, 22.8% on place of birth and 19.3% on what to do if there was a complication. The proportions of women that recognized signs of danger were 28.9% for anemia, 24.6% for hypertension, 14.8% for hemorrhage, 12.9% for fever and 5% for puerperal sepsis. Prolonged labor was not recognized as a danger sign. Women attending rural antenatal clinics were 1.6 times more likely to recognized signs of anemia and hypertension as indicative of danger compared to women attending urban antenatal clinics. (10)

A Finding from a National Survey in Bangladesh on Maternal Health and Care-Seeking Behavior showed that 45% were informed about the danger signs of complications and 54% were told where to go in the event of maternal complications. Almost half of women reported having one or more complications during pregnancy that they perceived as life threatening conditions. (20)

As the study conducted in rural areas of India on determinants of antenatal care utilization showed, there was low awareness on both antenatal care service clients and non attendants as a whole. And of those clients obtaining antenatal care service, awareness of care during pregnancy and knowledge of pregnancy related complications were about 50% that mentioned at least one problem and only few women mentioned complications that are life threatening for both the mother and the fetus named vaginal bleeding (21.2%) and loss of fetal movement (14.4%), (21).

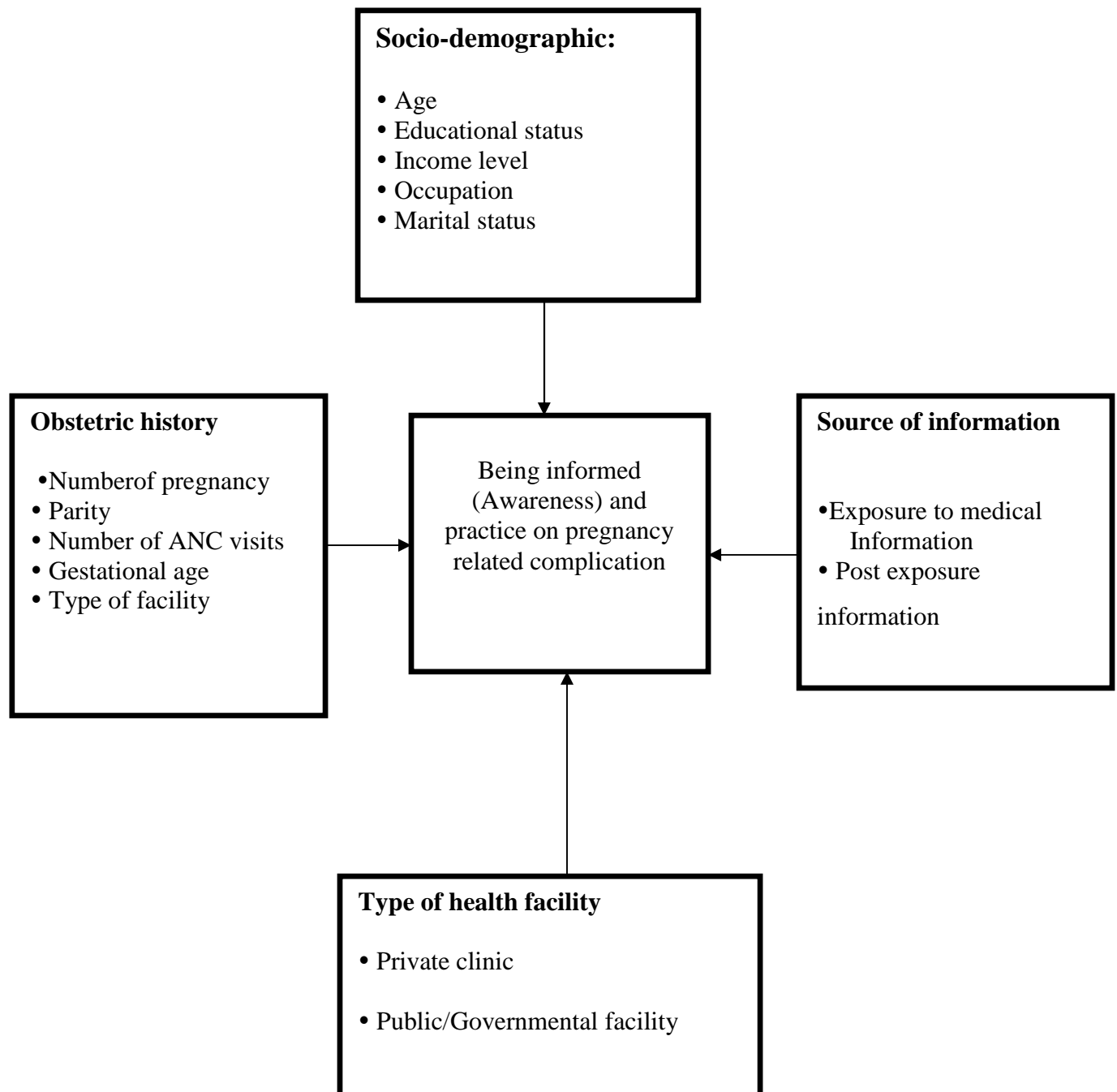
As most of the study findings showed pregnant women attended the antenatal care had low awareness of danger signs of obstetric complication. (7, 8, 10, 11, 12)

There were regional variations on informed pregnant women on pregnancy related complications in all regions including Ethiopia; the highest were in Addis Ababa and low in Benishangul-Gumuz according the DHS 2005. Factors that associated with having information on pregnancy related complications were educational status, socioeconomic status, number of ANC visits, have previous pregnancy termination and urban or rural dwellers. (1, 2, 5, 9)

There was significant association between advice given on pregnancy and delivery complications and birth preparedness and the intent of utilizing health service (skilled delivery). And as educational status, age, and number of visits were increased there was a tendency by the pregnant women to be more informed on pregnancy related complications (8, 9)

As the studies suggested there is a high level of unmet need for information on pregnancy complications in sub Saharan Africa including Ethiopia. ( 5, 8, 9,12, 21)

## A Conceptual Frame Work



**Figure1: Pictorial representation of conceptual frame work for being informed and practice of pregnancy related complications and associated factors**

### **3. OBJECTIVE OF THE STUDY**

#### **3.1 GENERAL OBJECTIVE**

To assess Awareness and Practice of pregnancy related danger sign among pregnant women attending antenatal clinic in Addis Ababa.

#### **SPECIFIC OBJECTIVE**

1. To assess Awareness of pregnant women on pregnancy related danger signs who attended antenatal clinic at least once in the current pregnancy in Addis Ababa.
2. To assess Practice of pregnant women on pregnancy related danger signs who attended antenatal clinic at least once in the current pregnancy in Addis Ababa
3. To describe factors affecting Awareness and Practice of pregnancy related complication/danger signs.



## **4. METHOD**

### **4.1 STUDY AREA**

The study was conducted in Addis Ababa the capital city of Ethiopia. Addis Ababa lies at an altitude of 7,546 feet (2,300 meters) with an estimated population of 2,976,608 for 2003 EFY (2010-2011 projected). The city divided in to ten sub cities and 116 Woredas. There are 5 Federal and 5 Regional hospitals and 26 public health centers, in addition there are 32 private, 2 Army, 2 NGO and 1 police hospitals, and there are also 539 higher and medium clinics. Among the public hospitals 2 federal and 3 regional hospitals are working as referral hospitals for maternal health care. Fifteen special maternal and child clinics provide maternal health services. (17) The estimated pregnancy for the city is about 71438 (2.4 % of the total population) for 2003 EFY (2010 - 2011). Antenatal care is among the services provided at governmental, other governmental and private health facilities (17).

### **4.2 STUDY DESIGN**

A cross sectional study with internal comparison was conducted using quantitative method in five public health centers (Gulele, Arada, Selam, Beletshachew and Woreda 24) and two private maternal special clinics (Sipara and Ananya) in Addis Ababa city, Ethiopia.

### **4.3 STUDY PERIOD**

Data was collected from February 8 to 14, 2011.

#### **4.4 STUDY POPULATION**

Source populations were all pregnant women in Addis Ababa and study population were pregnant women who attended antenatal clinic in the randomly selected public health centers and private special maternal clinics in current pregnancy in Addis Ababa.

#### **ELIGIBILITY**

##### **Inclusion**

- All pregnant mothers who attended antenatal care service with at least one previous visit during the time of the study
- Pregnant women who are volunteer to participate in the study

##### **Exclusion**

- Pregnant woman with emergency conditions at time of data collection.
- Pregnant women who had no previous visit at the specific health facility at time of data collection
- Pregnant women who are not volunteer to participate in the study

#### **4.5 SAMPLE SIZE**

Sample size was determined using EPI INFO 3.5.1 statistical software with the assumptions of, estimate sample size of single population proportion. The assumption used was according to DHS 2005, 62.8% expected prevalence of being informed on pregnancy related risk/danger signs and 50% of pregnant women practice on pregnancy related risk (who took immediate measurer at time of risk in previous pregnancies), since there was no prior study undertaken on a similar study population, with estimated precision of 5% and the 95% confidence interval and a non respondent rate of 10%. A sample of 394 and 422 women was thus calculated.

**To calculate sample size the following formula was used:**

Total population size

N = 71438 (estimated pregnancy in Addis Ababa is 2.4% of the total population)

Desired precision (d) = 5%

### **For objective number 1**

Expected prevalence of being informed on pregnancy related risk/danger signs (P) = 62.8%  
(proportion of level of knowledge of pregnant women attended antenatal clinic on danger sign in Addis Ababa) DHS 2005.

$$\text{Minimum sample size } n = \frac{(Z_{\alpha/2})^2 p(1-p)}{d^2} = \frac{(1.96)^2 0.63(0.37)}{0.05^2} = 358$$

10% allowance for non respondents = 36, the final sample size of the study n = 394

### **Objectives 2 and 3**

Since the prevalence for health seeking behavior (practice) is unknown 50% prevalence taken to calculate sample size with the assumptions.

P = 50%

Level of confidence = 95%

Desired precision (d) = 5%

$$\text{Minimum sample size } n = \frac{(Z_{\alpha/2})^2 P(1-P)}{d^2} = \frac{(1.96)^2 0.5(0.5)}{0.05^2} = 384$$

With an assumption of 10% non respondent rate = 422

Since 422 is the largest sample size among the calculated sample sizes and can represent all,

n = 422 was taken for the study.

#### **4.6 SAMPLING PROCEDURE**

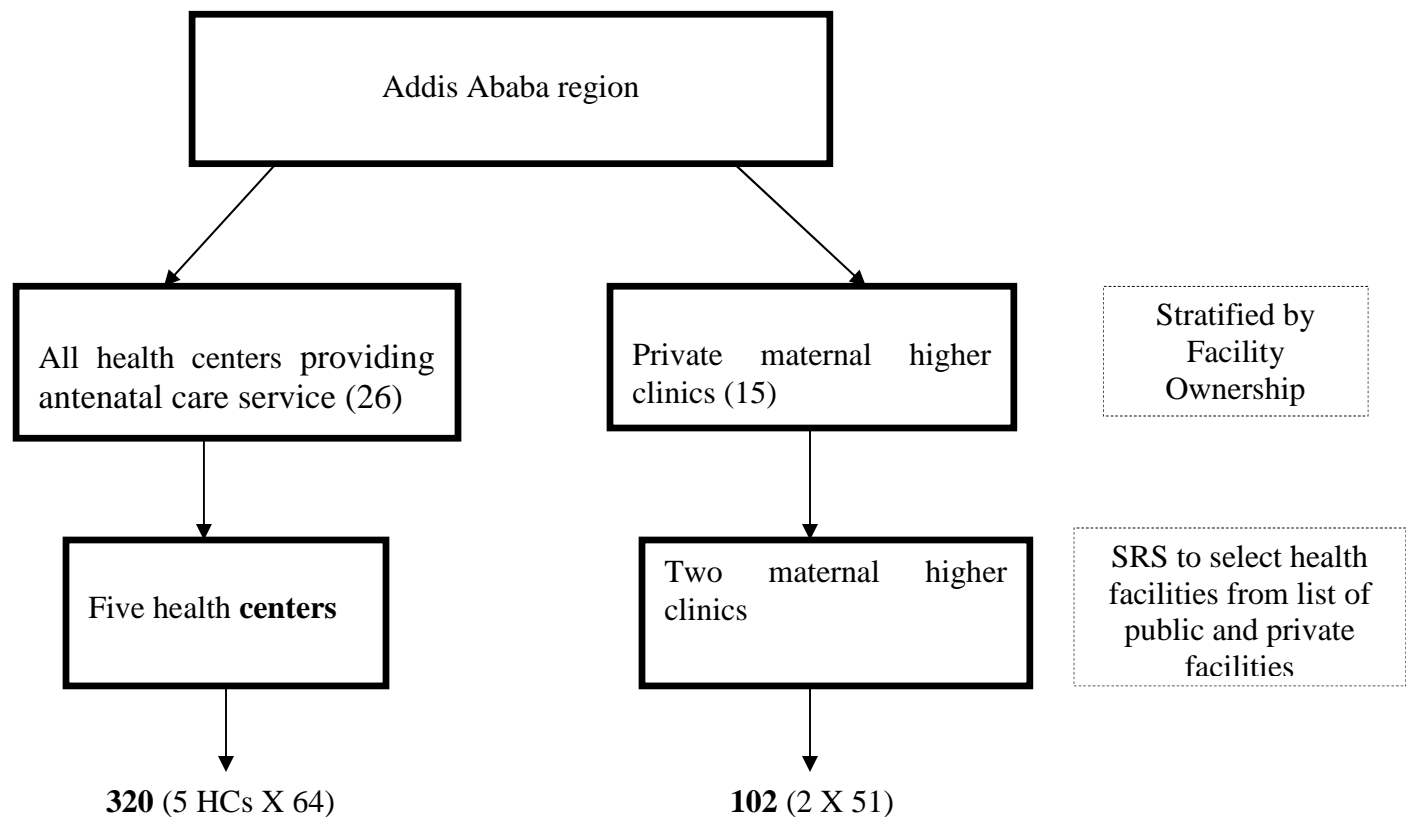
The study population was stratified by ownership of health institution the women visited for antenatal care as public and private health facilities. A stratified population was used to minimize the difference in socio demographic characteristics of antenatal clients and services provided at public health centers and private health facilities.

Hospitals was not included in the study because usually they are referral sites for pregnant women with complications and mothers could be more or less informed on danger signs during referral.

Five health centers from public health institutions (Lideta, Beletshachew, Arada, Selam and Gulele) and two maternal and children special clinics (Sipara and Ananya) from private facilities included in the study using simple random sampling. All pregnant women who fulfill the inclusion criteria and attended the health facilities at time of data collection were included in the study.

With the consideration of 75.8% of the clients were attending antenatal clinic at public health centers and 24.2% at private facilities, a sample size of 320 and 102 was determined from public and private facilities respectively (13). With the assumption of each public health center in Addis Ababa will serve 40,000 populations and services provided in the health centers and health professionals assigned to the health facilities are homogenous equal sample size was collected from each public health centers. And considering private special maternal clinics provided similar service equal sample size taken from the facilities.

## Schematic presentation of sampling procedure



**Figure 2: Schematic presentation of sampling procedures**

## 4.7 STUDY VARIABLES

### Dependent variable

Being informed on pregnancy related danger signs (Yes, No)

Practice on pregnancy related danger signs (Immediate, Late)

### Independent variables

Age

Marital status

Educational status

Number of pregnancy

Parity

History of pregnancy related complications

Number of ANC visits

Income level

Have follow up at government or private facilities

have ANC follow up in previous pregnancies

#### **4.7 DATA COLLECTION PROCEDURE**

Quantitative data collection tool : Structured written questionnaire.

Primary data was collected via a structured written questionnaire prepared in Amharic language in face to face interview. Data was gathered by data collectors that have an experience on data collection and working as health information technicians after obtaining one day training on content of the questionnaire and data collection procedure. Data collectors obtained informed consent and provided verbal explanation of the purpose of the study to investigate on being informed and practice of pregnant women about pregnancy related complication/ danger signs.

Data was collected before pregnant women getting antenatal care service at the data collection day. Specific site for data collection was antenatal clinics of the randomly selected public health centers and private higher clinics.

Prior to data collection the tool was pretested in Teklehaymanot health center which is not part of the main study and 32 pregnant women were interviewed. Being informed on danger signs among

the pregnant women that included on the pretest was 23 (71.9%). Sentences were rephrased and questions were rearranged based on the finding of the pre test.

Each health facility was visited daily for data collection in order to achieve the calculated sample.

#### **4.8. DATA QUALITY**

The questionnaire was developed by reviewing relevant literatures on the subject and adopt from previous studies to ensure reliability. The Questionnaire was then pre-tested at Teklehaymanot health center, which is not part of the main study.

The data collectors, who are health information technicians with data collection experience were recruited and trained for one day on data collection technique by the investigator to enable them, understand the content of the questionnair and data collection procedure. All collected data were checked for completeness and consistency by the principal investigator for main variables on the spot. Besides this, the principal investigator carefully entered and cleaned the data before the commencement of the analysis.

#### **4.9. DATA ANALYSIS METHOD**

Data was entered and cleaned using EPI statistical software version 3.5.1. Data was exported to SPSS version 16.0 for analysis and result were described using frequencies, percentages and tables. Odds ratio with 95 % confidence interval was computed assess the presence and degree of association between dependent and independent variables. P. value less than 0.05 was considered significant. Moreover, multiple logistic regression analysis was employed to control the possible confounding effect and assess the separate effects

#### **4.10. OPERATIONAL DEFINITION**

**Antenatal care:** a service provided to a pregnant woman during period of pregnancy.

**Danger signs:** are signs that can occur at time of pregnancy which are life threatening such as vaginal bleeding, severe headache or blurred vision, severe abdominal pain, swollen hands and face, fever; baby stopped or reduced movement, and excessive tiredness/breathlessness (1).

**Gravidity:** number of pregnancy

**Health Sector Development Program:** a five years strategic plan of federal ministry of Ethiopia

**Informed on danger signs:** A pregnant women who was informed on pregnancy related danger sign at time of ANC visit

**Maternal Mortality:** Death of a woman while pregnant, within 42 days of termination of pregnancy from any cause related, or aggravated by the pregnancy or its management (irrespective of duration and position/site of the pregnancy) other accidental or incidental causes of death should be not labeled as reason for maternal mortality.

**Miscarriage:** termination of pregnancy before 28 weeks of gestation

**Nuclear:** A family that consists of father, mother and children when it is thought of as a unit in a society

**Parity:** number of children

**Practice:** A pregnant woman's past experience on pregnancy related danger sign

**Single:** a pregnant woman who takes care of her child/children without husband and parent.



## **5. ETHICAL CONSIDERATION**

Before data collection, the study has obtained ethical clearance from Addis continental Institute of public Health. Supporting letter from Addis Ababa regional health bureau was presented to the study sites. Discussion was also held with respective health facilities to obtain their consent. In addition verbal consent was obtained from each respondent. To ensure privacy and confidentiality the interview was conducted where questions and responses cannot be overheard. Names and other identifying information were not used in the study.

## **6. RESULTS**

Over all 421 pregnant women were interviewed and 32 (7.6%) pregnant women have refused to respond that making the response rate at 92.4%. Most of non respondents were from Arada Health center for the registration system was very slow and waiting time is too long for the ANC clients, more over the waiting place for the clients was inconvenient..

### **Socio-demographic Characteristics**

The mean age of the clients was 26 years (Range: 16 - 43 years) and 41.4% and 31.6% were between 25 - 29 and 20 – 24 years of age respectively. There was only one woman with the age less than 18 years. Regarding marital status, 366 (94.3%) of the clients were married/in union. Majority (68.3%) are orthodox Christians. Among the respondents 125 (32.4%) had completed secondary education.

Two hundred fifty five (61%) were unemployed /housewife. The median household monthly income was 1200 ETB, and ranges from 120 to 9000 ETB per month family income.

Respondents visited by facility ownership reflects that 290 (74.5%) of the pregnant women were from the public health facility and 99 (25. 5) from private higher clinics.

Table1: Socio- demographic characteristics of study subjects and respondents visited by facility ownership, Addis Ababa, May 2011

Variables	Frequency	%
Age (n=389)		
15 – 19	20	5.1
20– 24	123	31.6
26 – 29	161	41.4
30 – 34	67	17.2
35 – 39	17	4.4
40 – 44	1	0.3
Marital status (n=388)		
Unmarried	18	4.6
Married & in Union	362	93.3
Separated/Divorced/ Widowed	8	2.0
Religion		
Orthodox	265	68.3
Catholic	5	1.3
Protestant	34	8.8
Muslim	82	21.1
Other	2	0.5
Educational status (n=386)		
Illiterate	54	14.0
Elementary (1- 6 grade)	63	16.3
Junior (7-8)	67	17.3
Secondary school (9-12)	125	32.4
Diploma and above		
Occupation (n=382)		
Employed	105	27.5
House wife (unemployed)	233	61.0
Student	5	1.3
Self employment	37	9.7
Other	2	0.5
Type of Family (n=377)		
Single	36	9.5
Nuclear	307	81.4
Extended /Joint	34	9.0
Facility ownership by respondents attendance (n=389)		
Public	290	74.5
Private	99	25.5

## Client obstetric History

Table 2 describes client's obstetric history and antenatal care practice in previous and current pregnancy. Almost half of the respondents (51.2%) are primigravida and among the pregnant women who ever gave birth, most of them (68.9%) have gave birth to one child.

153 (39.4%) of the pregnant women had four and more ANC visits at time of data collection. Respondent's number of months pregnant at time of data collection was, 212 (54.5%) they were on their third trimester. 197 (51.4%) pregnant women booked in their first trimester for the first ANC visit of current pregnancy.

Among the 191 respondents, having more than one pregnancy 151 (80.3%) had antenatal follow up in their previous pregnancy/cies.

Table 2 obstetric History and Antenatal care practice, Addis Ababa Ethiopia, 2011

Characteristic	Frequency	%
Number of pregnancy/gravidity/ (n=389)		
One	199	51.2
2 – 3	162	41.6
4 – 5	27	6.9
6 and more	1	0.3
Number of children /parity/ for those who have more than one pregnancy (n=164)		
One	113	68.9
Two	36	22
Three	13	7.9
Four and more	2	1.2
Had Miscarriage/Abortion (n= 191)		
Yes	64	33.5
No	127	66.5
Stage of pregnancy at the time of interview (n=389)		
< 16 weeks	30	7.7
16 – 28 weeks	147	37.8
>28 weeks	212	54.5

Stage of pregnancy during the first ANC visit  
of the current pregnancy (n=389)

< 16 weeks	297	76.3
16 - 28 weeks	83	21.3
> 28 weeks	9	2.3

Number of ANC visit

Second	128	33
Third	107	27.6
Four and more	153	39.4

Antenatal care visit in previous pregnancy  
(n=188)

Yes	151	80.3
No	37	19.7

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**Provided information on danger signs and most commonly informed complications**

**Table 3** shows provided information on pregnancy related complications and most commonly informed pregnancy complications by ANC service providers. About 267 (68.6%) recalled that they were informed on pregnancy related complications by the health professionals at time of ANC visit and only 4.5% of the respondents were recalled all the seven potential danger signs. Danger signs most commonly informed/recalled were vaginal bleeding 48.1% and swollen hands, feet and face 43.4% while the least informed danger sign was fever.

Among women who had been informed about potential complications, the vast majority (92.4%) were specifically told where to go to seek help in the case of complications.

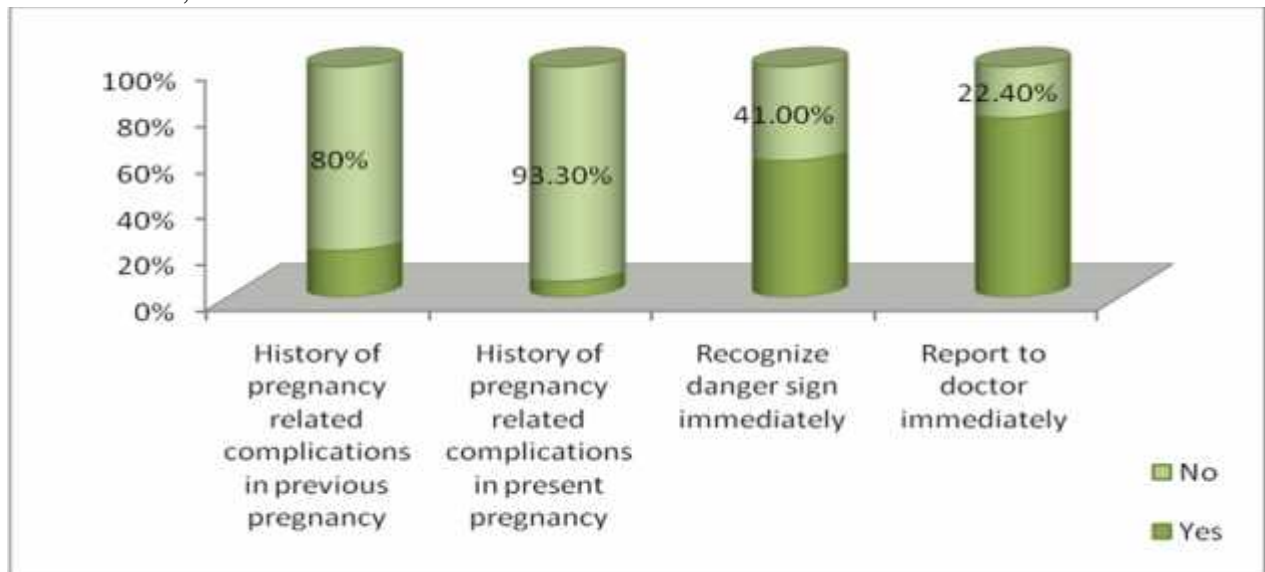
Table 3 Number of antenatal clients provided information on danger signs and most commonly informed complications by service providers, AA, Ethiopia, 2011

Variables	Frequency	%
Informed on pregnancy related		
Complications during ANC follow up (n=389)		
1) Yes	267	68.6
2) No	117	30.1
3) Don't Know	5	1.3
Danger signs most commonly informed by service providers (n=389)		
Vaginal bleeding,	187	48.1
Severe headache or blurred vision,	146	37.5
Severe abdominal pain,	60	15.4
Swollen hands and face,	160	43.4
Fever;	54	13.9
Baby stopped or reduced movement,	121	31.1
Excessive tiredness/breathlessness	92	23.7
Other	2	0.5
Potential danger signs recalled by respondents		
One	38	14.2
Two	74	27.7
Three	49	18.4
Four	31	11.6
Five	44	16.5
Six	19	7.1
All the seven	12	4.5
Respondents told where to go at time of complications (n=267)		
1) Yes	242	90.6
2) No	15	5.6
3) I don't know/Missing	10	3.7

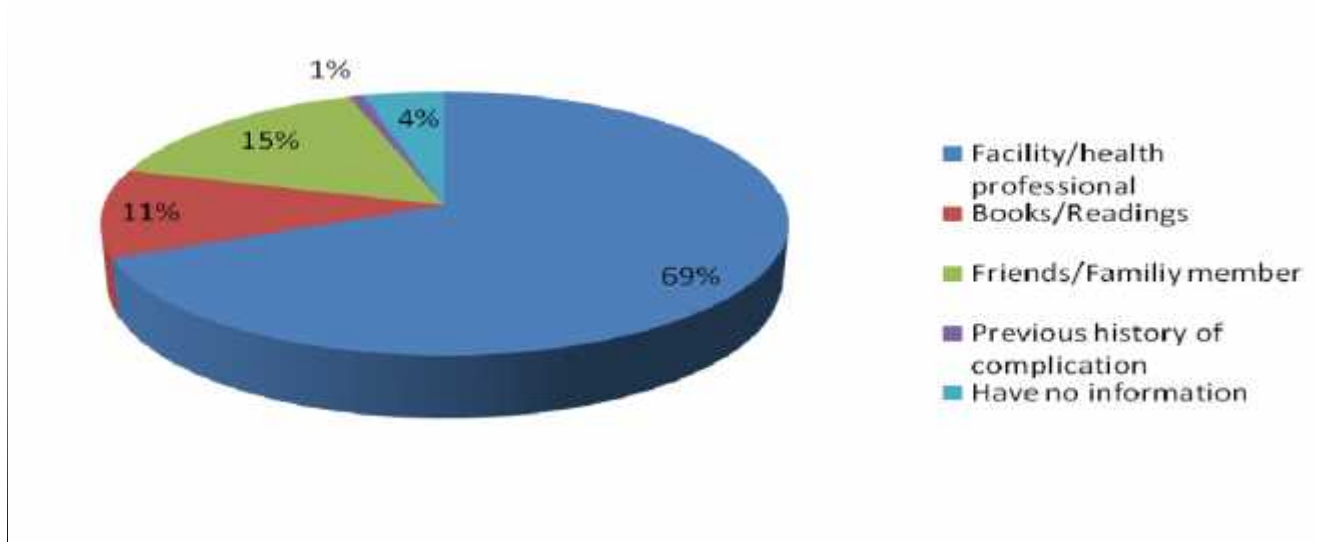
Seventy-eight (20%) of the respondents had history of pregnancy related complication in their previous pregnancies and 59% of them recognized immediately as pregnancy related complications. Concerning actions taken at time of the problem, 77.6% visited immediately health facility whether they recognized the problem as pregnancy related risk or not.

Perception of respondents on the benefit of having information on pregnancy related complications to the pregnant women, only 116 (29.8) believe be informed can help to identify the complication early and seek medical care immediately when arouse.

**Figure 3** Pregnant women, which had history of complications, perception towards use of information at time of danger sign, time to recognize the complication and measures taken /Practice/ AA, 2011



**Figure 4:** Respondents source of information for pregnancy related risk, AA, 2011



Antenatal clients informed on pregnancy related danger signs were statistically associated with the facility ownership and type of service providers. Clients attended at public health facilities for antenatal care were eight times more informed than those who had follow up on private health facilities. (OR = 8.00; CI: 4.81- 13.31), (Table 4).

The independent variables age of the pregnant woman, marital status, educational level, level of income, occupation, parity, family type and gestational age at the time of antenatal visit were not associated with being informed on pregnancy related danger signs in the bivariate logistic regression analysis.

However the study shows a statistically significant negative relationship between the number of visit and being informed for pregnancy related danger sign and also number of pregnancy and to be informed on pregnancy related risks. Clients who had one visit were 1.93 times more informed on danger signs than those who had three and more visits (OR= 1.93, 95% CI: 1.14, 3.24). And women with first pregnancy were 2.5 times more informed on pregnancy related risk than those that had four and more pregnancies (OR= 2.52, 95% CI: 1.11, 5.71).

Regarding information on where to go at time of risk is not statistically associated with the independent variables; facility ownership, type of service provider, sociodemographic factors, gravidity as well as number of antenatal care visits



Table 4. Association of Antenatal care client's information on danger signs and other factors in Addis Ababa, 2011

Variables	Informed on Pregnancy related danger signs			
	Yes	No	Crude OR (95% CI)	Adjusted OR (95% CI)
<b>Facility ownership</b>				
Private <sup>(r)</sup>	35	64	1	1
Public	232	53	8.00(4.81, 13.31)*	0.75(0.09, 5.88)
<b>Age</b>				
>34 <sup>(r)</sup>	11	6	1	
20-34	222	100	1.21 (0.43, 3.36)	
< 20	34	11	1.68(0.50, 5.62)	
<b>Number of pregnancy</b>				
Four and more <sup>(r)</sup>	14	13	1	1
2 – 3	109	51	1.98(0.87, 4.52)	
One	144	53	2.52(1.11, 5.71) *	0.68(0.46, 0.99) **
<b>Number of visit prior to the study</b>				
Three & more <sup>(r)</sup>	94	58	1	1
Two	76	28	1.67(0.97, 2.88)	
One	97	31	1.93(1.14, 3.24) *	1.04(0.76 1.42)

\* and \*\* are significant at  $\alpha = 0.05$   
r-reference category

By adjusting individual effect of the above confounders, only number of pregnancy of the antenatal clients is statistically associated with being informed on pregnancy related risk (AR: 0.66, 95% CI: 0.45, 0.97). Independent variables Facility ownership, type of service provider, gravidity as well as number of antenatal care visits was included in the multivariate logistic regression analysis.

Perception of antenatal clients towards danger sign was not statistically associated with sociodemographic variables; age, marital status, income level, gestational age, facility type, and number of pregnancy.

**Table 5.** Describes that pregnant women with a history of pregnancy related risks in previous pregnancy and immediate measures taken at time of risk (Practice). Pregnant women that had pregnancy related risk in previous pregnancy and measures took at time of risk was associated with having antenatal care visit. Pregnant women who had antenatal care visit in previous pregnancy/cies were three times more to take immediate measure at time of risk than those had no antenatal care visit (OR= 3.00, 95% CI: 1.11, 8.19)

And respondents who had 3 and less pregnancies were late to take measure at time of complication than those who had four and more pregnancies (OR= 0.14, 95% CI: 0.03, 0.63).

Occupation, economical status, family type, marital status, age and educational status were not statistically associated with practice / took measures at time of risk.

**Table 5.** Associations of Antenatal care client's that had history of danger sign and practice/took immediate measure at time of risk and other factors in Addis Ababa, 2011

Variables	Measures taken (Practice) by pregnant women at time of risk in previous pregnancy related complication		
	Yes	No	OR (95%CI)
<b>Age</b>			
>34 <sup>(r)</sup>	1	5	1
20-34	10	56	1.94 (0.45, 7.95)
< 20	1	5	0.95 (0.19, 4.57)
<b>Marital status</b>			
Married <sup>(r)</sup>	58	12	1
Unmarried	1	4	
Divorced	0	1	1.54(0.46, 5.66)
<b>Number of pregnancy</b>			
Four and more <sup>(r)</sup>	7	11	1
1 – 3	5	55	0.14(0.03, 0.63) *
<b>Had ANC follow up</b>			
Yes <sup>(r)</sup>	29	17	1
No	12	20	3.00(1.11, 8.19) *

\* are significant at  $\alpha = 0.05$   
r-reference category

## 7. DISCUSSION

This study revealed that only 68.6% of antenatal care clients in the study area recalled that they were informed on pregnancy related complications by service providers. Comparing to 62.8% reported for Addis Ababa in the 2005 Demographic and Health Survey of Ethiopia (4).

A cross-sectional, cross-country analysis of DHS in sub-Saharan Africa on recall of receiving information about pregnancy complications also indicated that pregnant women that recalled that they were informed on pregnancy related risk was 72% in Malawi, 59% Ghana 57% in Mozambique 56% and 31% in Ethiopia (5) .

Another study also supports the result that 58% clients were informed on at least one pregnancy related risks (9). Findings from a study done in urban health centre in Malawi also showed that 60% of the participants were knowledgeable about obstetric complications in pregnancy (8).

The study from India also supports the study that more than half of pregnant women who had antenatal care services mentioned at least one pregnancy related complication (21).

Regarding the frequency of danger signs informed for; the study showed that only 4.4% clients were recalled all seven potential danger signs, which are lower than study result shown in Tanzania, 8.7 % (9).

Higher recall was observed for vaginal bleeding, 48% and swollen hands feet and face (43.4) while the least informed danger sign was fever. Similar responses also showed in study conducted in Tanzania that pregnant women recalled vaginal bleeding as pregnancy related risk was 50% and 45% for swollen hands, feet and face and 12.9% for fever (9).

This study indicated that among women who had been informed about pregnancy related complications, the vast majority (92.4%) were told where to go to seek help in the case of

complications. The assessment done in sub-Saharan countries also shows similar result that is 84% to 98 % were told where to go in the event of maternal complications (5).

Independent variables; age of the pregnant woman, marital status, educational level, level of income, occupation, parity, Family type and gestational age at the time of antenatal visit were not associated with being informed on pregnancy danger signs in the bivariate logistic regression analysis. Similar result also shown in some variables by the assessment done in DHS 2005 data of sub-Saharan countries; age of pregnant women and having information on danger signs was not statistically significant in countries; Ethiopia, Benin, Cameroon, Chad, Congo, Guinea, Namibia and Uganda. And Countries where the association is not statistically significant in parity were; Benin, Cameroon, Chad, Congo, Ethiopia, Ghana, Guinea, Nigeria and Zimbabwe. (5)

A study done in Tanzania also similarly indicate that independent variables; age of the mother, marital status and educational level were not associated with being counseled on pregnancy danger signs in the bivariate logistic regression analysis.

Conversely, a statistically significant negative relationship between number of antenatal care visit and being informed on pregnancy complications and number of pregnancy (gravidity) and have information on danger signs was found in this study. Antenatal clients that had 1<sup>st</sup> visit was 1.93 times more informed about danger signs than those having three and more visits and pregnant women had one pregnancy 2.5 times more informed on pregnancy related danger signs than those had four and more pregnancies. This negative association could happened due to health professionals can give more attention to pregnant women with first pregnancy for they can assume that they have no or less information about pregnancy related danger sign and health professionals could also perceived that primigravida women are at risk than those have more than one pregnancy.

Pregnant women who had history of danger sign and measures took (practice/ sought immediate medical care) has statistically significant association. Pregnant women who had antenatal care visit in previous pregnancy were three times more took immediate measure at time of risk than those who had no antenatal care visit. (OR= 3.00, 95% CI: 1.11, 8.19). Respondents with less than four pregnancies were late to take measures at time of complication than those have four and more (OR=0.14 95% CI: 0.03, 0.63)

## **Strength and Limitation of the study**

### **Strength**

- The study has valuable base line data to measure changes in provision of information on pregnancy related risk over time among Antenatal clients in Addis Ababa
- Include private facilities in the study
- Being Primary data

### **Limitation**

- The study was conducted in public health centers and private maternal clinics and did not involve private and other governmental hospitals that findings may not be conclusive to private and other governmental hospitals.

## **8. CONCLUSION**

The study results showed that providers do not routinely provide information and advice antenatal clients on pregnancy complications as part of antenatal care. Despite high coverage of antenatal care coverage in Addis Ababa, one out of three clients was not informed on pregnancy danger signs during their visits

Health professionals provided antenatal care service at private clinic seems offer little or no attention to inform pregnant women on pregnancy related complications even though majority (67.7%) of clients from private clinic had three and more visits

In order to equip pregnant women to make timely decisions for seeking care when a complication arises, the situation needs to be improved.

## **9. RECOMMENDATION**

In order to improve provision of information and equip antenatal clients with basic information on pregnancy related danger signs, we recommended-

- All antenatal care service providers as a whole and private clinics in particular should inform each client on pregnancy related danger signs at her early first visit as one of key component of the focused antenatal care.
- Regional health bureau and facilities has to work on reinforcing information provision to pregnant women through continuous sensitive information, education and communication programs.
- Further studies on the factors affected counseling a pregnant women on danger signs by health workers are needed.



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## Annex I

### CONSENT FORM

My name is ----- I am working as data collector in a research entitled Assessment of Knowledge, Attitude and Practice of pregnant mothers on pregnancy related danger signs in Addis Ababa”. The purpose of the study is to assess knowledge Attitude and Practice of pregnant women attending antenatal clinic on danger signs in Addis Ababa

I am going to ask you some general and personal questions. Completing the survey is voluntary.

If you do not want to answer a question, just you can leave it. You may end this survey any time you want to. The answers you give will be kept confidential No one will know how you answer.

Your name will not be written on this form and will never be used in connection with any of the information you tell me.

However, your participation and honest response to the questions is crucial to improve the health information delivery in antenatal service. The survey will take about 20 minutes to ask the questions. I would greatly appreciate your help in responding to this survey. Would you willing to participate in the survey?

1. Yes, I will participate

2. No, I will not participate

## Annex II

Code			
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## Questionnaire

Assessment of Knowledge, Attitude and Practice of pregnant mothers on Pregnancy related danger signs in Addis Ababa”

Data collection date\_\_\_\_\_ Name of data collector\_\_\_\_\_

Region: Addis Ababa

City: Addis Ababa

Name of sub-city \_\_\_\_\_ Name of Health facility \_\_\_\_\_

Type of health facility 1) Public 2) Private

**Profession of service provider**

1) Nurse 2) Midwife 3) Health officer 4) Doctor (GP) 5) Obstetrician/Gynecologist

**II. Personal and Socio demographic characteristics****Skip**

1	How old were you at your last birthday?	In Year _____	
2	Marital status	1) Unmarried 2) Married 3) in Union 4) Separated/Divorced 5) Widowed	
3	What is your religion?	1)Orthodox 2)Catholics 3)Protestant 4) Muslim 5) other	
4	Have you ever attended school?	1) Yes 2) No	If No to Q6
5	What is the highest grade you completed?	1) Grade_____ 2) Tech./Voc. Certificate . 3) University/College Diploma. 4)University/Collage Degree or higher	
6	What is your occupation?	1) Employed 2) House wife(unemployed)	

		3) Student 4) Business/self employment 5) Other	
7	Family Income level (Birr per month)	1) _____ Birr 2) Don't know	
8	Type of Family	1) Single 2) Nuclear 3) Extended /Joint	
9	How many pregnancies have you ever had?	_____	If only one skip to 15
10	Have you ever had a pregnancy that miscarried, was aborted, or ended in a stillbirth?	1) Yes 2) No	
11	Have you ever given birth?	1) Yes 2) No	If no skip # 15
12	If Yes number of children	_____	
13	Did you see anyone for antenatal care for the previous pregnancy?	1) Yes 2) No	
14	Where did you receive antenatal care for the previous pregnancy?	1) Health Post 2) Health center 3) Hospital 4) Private clinics 5) Private Hospitals 6) _____	
15	How many months pregnant are you now?	1) _____ Months 2) Don't know	
16	How many months pregnant were you when you first received antenatal care for this pregnancy?	1) _____ Months 2) Don't know	
17	How many times did you receive antenatal care during this pregnancy?	1) 2 2) 3 3) $\geq 4$	
18	During (any of) your antenatal care visit(s), were you told about the signs of pregnancy complications?	1) Yes 2) No 3) Don't know	If no/ don't know skip # 21

19	If yes what are the complications informed for?	1) vaginal bleeding, 2) severe headache or blurred vision, 3) severe abdominal pain, 4) swollen hands and face, 5) fever; 6) baby stopped or reduced movement, 7) excessive tiredness/breathlessness 8) Other _____	
20	Were you told where to go if you had any of these complications?	1) Yes 2) No 3) I don't know	
21	If no to # 18, do you have any information about pregnancy related complications that a pregnant woman can face?	1) Yes 2) No	If no skip to # 24
22	If yes what are the complications?	1) vaginal bleeding, 2) severe headache or blurred vision, 3) severe abdominal pain, 4) swollen hands and face, 5) fever; 6) baby stopped or reduced movement, 7) excessive tiredness/breathlessness 8) Other _____	
23	From where do you hear about pregnancy complications?/source of information	1) Mass media 2) Health personal 3) Peer/Elders & relatives 4) Previous history of pregnancy related complications 5) Other _____	
24	In your previous pregnancy /cies, do you had any pregnancy related complications?	1) Yes 2) No	If no skip to # 26
25	If yes what was the problem?	1) vaginal bleeding, 2) severe headache or blurred vision, 3) severe abdominal pain, 4) swollen hands and face, 5) fever; 6) baby stopped or reduced movement, 7) excessive tiredness/breathlessness 8) Other _____	
26	In your current pregnancy do you have any pregnancy related complications?	1) Yes 2) No	If no skip to # 30

27	If yes what was /is the problem?	1) vaginal bleeding, 2) severe headache or blurred vision, 3) severe abdominal pain, 4) swollen hands and face, 5) fever; 6) baby stopped or reduced movement, 7) excessive tiredness/breathlessness 8) Other _____	
28	How fast were you recognized as pregnancy related danger signs	1) immediately 2) in a day 3) In a week 4) other _____	
29	What immediate actions were you take when you experienced problem?	1) Wait till problem subsides. 2) Take complete bed rest. 3) Report to the doctor immediately. 4) Wait 2 to 3 days after the problem occurs 5) Other _____	
30	What do you think a pregnant woman should do when she faces complication?	1) Wait till problem subsides. 2) Take complete bed rest. 3) Report to the doctor immediately. 4) Seek advise from friends/family members 5) Other _____	
31	What do you think how having information on danger signs can help pregnant women?	1) To identify early and seek medical care when arouse 2) Take care of her self 3) To prevent from happening 4)Nothing 5)Other _____	
32	If nothing why?	1) usually it is common a pregnant mother can face discomfort/ some problems 2) it may not be life treating condition 3) ANC follow up is enough 4) Other specify _____	
33	Tell me how visiting a health facility can help a pregnant woman when she faces risk?	1) To detect maternal problem and treat 2) To detect fetal problem and treat 3) Prevent from aggravating 4) Other specify _____	
34	Why a pregnant mother should avoid self medication?	1) It may cause risk to the mother 2) It can cause fetal abnormality. 3) It may aggravate the problem 4) other specify _____	



35	Do you decided about place of delivery	1) Yes 2) No	
36	Decided place of delivery	1) Public health centers /Hospitals 2) Private clinic/Private Hospital 3) Go to mother's house 4) Home with assistance 5) other specify	

**የዳሰሳ ጥያቄ የተሳታፊዎች ፈቃደኝነት መግለጫ ቅጽ**

ስሜ ----- ይባላል። ነፍሰጡሮች በክትትል ጊዜ ማግኘት ስለሚኖርባቸው መረጃ በሚሰራው ጥናት ላይ መረጃ ሰብሳቢ ነኝ። የጥናቱ ዋና አላማ በአዲስ አበባ ከተማ ባሉት ጤና ተቋማት የነፍሰጡር ህክምና ክትትል በማድረግ ላይ ያሉ ነፍሰጡር እናቶች ከእርግዝና ጋር ተያይዘው በሚመጡት የጤና ችግሮች ላይ ያላቸው መረጃ፣ አመለካከት እና ተግባርን መዳሰስ ነው። ለጥናቱ አስፈላጊ የሆኑ አንዳንድ አጠቃላይና የግል ጥያቄዎችን ልጠይቆት ነው። በዳሰሳው ላይ የሚሳተፉት በሙሉ ፈቃደኝነት ነው። ለመመለስ የማይፈልጉት ጥያቄ ካለ አለመመለስ ይችላሉ። ይህንን የዳሰሳ መጠይቅ በማንኛውም ሰአት ማቋረጥ ይቻላል። የመለሱት የጥያቄ መልስ በሚስጥር ይጠበቃል ። ስምዎ በመጠይቁ ላይ አይሞላም ፡ በተጨማሪም ስምዎ በዚህ ጥናት ላይ ከሰጡኝ መረጃ ጋር በማያያዝ አልጠቀምም።

የእርስዎ በጥናቱ ላይ መሳተፍና እውነተኛ መልስ መስጠት የዚህን ጥናት አላማ ለማሳካት እጅግን አስፈላጊ ከመሆኑም በተጨማሪ ለጤና መረጃ አገልገሎት አሰጣጥ የላቀ አስተዋጽኦ ይኖረዋል። ዳሰሳው 20 ደቂቃ ያህል ይወስዳል ። በዳሰሳው ላይ በመሳተፍ ለሚያደርጉት ትብብር በቅደሚያ አመሰግናለሁ። በዳሰሳው ላይ ለመሳተፍ ፈቃደኛ ነዎት?

- 1. አዎን ሳተፋለሁ -----
- 2. አይ አልሳተፍም -----

መጠይቅ

መረጃው የተሰበሰበበት ቀን -----

መረጃው የሰበሰበው ሰው ስም-----

ክልል: አዲስ አበባ

ከተማ: አዲስ አበባ

ክፍል ከተማ ----- የጤና ድርጅቱ ስም-----

01. የጤና ድርጅቱ ባለቤትነት 1. የመንግስት

2. የግል

02. የነፍሰጡር ክትትል የሚያደርጉ/አገልግሎቱ የሚሰጡት ባለሙያ

1) ነርስ 2)አዋላጅ ነርስ 3)ጤና መከንን 4) ጠቅላላ ሀኪም 5) ስፔሻሊስት ሀኪም

አጠቃላይ የግልና ሶሻል ኢኮኖሚክ ሁኔታ

1	ዕድሜዎት ምን ያህል ነው	ዓመት	
2	የጋብቻዎ ሁኔታ	1) ያላገቡ 2) ያገቡ 3) ሳይጋቡ አብረው የሚኖሩ 4) የፈቱ/የተለያዩ 5) የሞቱባቸው	
3	ሃይማኖትዎ ምንድነው?	1) ኦርቶዶክስ 2) ካቶሊክ 3) ፕሮቴስታንት 4) ሙስሊም 5) ሌላ	
4	ትምህርት ቤት ገብተው ተምረው ያውቃሉ?	1) አዎን 2) አይደለም	መልሱ አይደለም ከሆነ ወደ ተራ ወደ ቁጥር 6 ይሂዱ
5	የደረሱበት ትምህርት ደረጃ?	1) _____ ክፍል 2) ከቴክኒክና ሙያ የምስክር ወረቀት 3) ከፍተኛ ትምህርት (ዩኒቨርሲቲ) ዲፕሎማ 4) ከፍተኛ ትምህርት (ዩኒቨርሲቲ)ዲግሪና ከዛ በላይ	

6	የስራ ሁኔታ	1) ስራ ያላቸው 2) የቤት እመቤት(ስራ የሌላቸው) 3) ተማሪ 4) በንግድ/በግል የሚሰሩ 5)ሌላ ይገለፅ_____	
7	ወርሃዊ የቤተሰብ የገቢ መጠን	1) _____ ብር 2) አላውቅም	
8	የቤተሰብ ሁኔታ	1) ብቻቸውን የሚኖሩ (ያለ ባል) 2) አብረው የሚኖሩ (ባል፣ሚስት፣ልጆች) 3) ተጨማሪ የቤተሰብ አባላት ጋር የሚኖሩ (አባት፣እናት፣አያት፣ ዘመድ.....)	
9	የአሁኑ እርግዝናዎ ስንተኛ እርግዝናዎ ነው	_____	የመጀመሪያ እርግዝና ከሆነ ወደ ተራ ቁጥር 15 ይሂዱ
10	ከዚህ በፊት ውርጃ አጋጥሞት ያውቃል?	1) አዎን 2) አይደለም	
11	ልጆች ወልደዋል?	1) አዎን 2) አይደለም	መልሱ አይደለም ከሆነ ወደ ተራ ቁ.15 ይለፉ
12	ስንት ልጅ/ልጆች አለዎት?	_____	
13	ከአንድ በላይ እርግዝና ካላቸው ከዚህ በፊት በነበሩት የእርግዝነት ወቅት/ቶች የነፍሰጡር ምርመራ አድርገው ያውቃሉ?	1) አዎ 2) አይደለም	
14	የነፍሰጡር ምርመራ/ክትትል ያደርጉ የነበሩት የት ነበር?	1) ጤና ኬላ 2) ጤና ጣቢያ 3) የመንግሥት ሆስፒታል 4) የግል ክሊኒክ 5) የግል ሆስፒታል 6) ሌላ ካለ ይግለፁ _____	
15	አሁን የስንት ወር ነፍሰጡር ነዎት?	_____ ወር	
16	ለመጀመሪያ ጊዜ የነፍሰጡር ምርመራ /ክትትል ሊያደርጉ ሲመጡ የስንት ወር እርጉዝ ነበሩ	_____ ወር	
17	በአሁኑ እርግዝናዎ የነፍሰጡር ክትትል ሲያደርጉ ለስንተኛ ጊዜዎት ነው?	1) 2 2) 3 3) 4	

18	በአሁኑ የነፍሰ ጡር ምርመራ ክትትል ወቅት ከእርግዝና ጋር ተያያዞ ሊከሰቱ ስለሚችሉ ችግሮች ተነግሮት ያውቃል?	1) አዎ 2) አይደለም 3) አላስታውስም	መልሱ አይደለም ከሆነ ወደተራ ቁ.21 ይለፉ
19	መልስዎ አዎን ከሆነ ችግሮቹ ምን ምንድናቸው?	1) የደም መፍሰስ 2) ያልተለመደ የራስ ህመም/ብዝሃ 3) ከፍተኛ የሆነ የሆድ ህመም 4) የፊት፣ እግርና የእጅ ማበጥ 5) ትኩሳት 6) የሽሉ እንቅስቃሴ መቀነስ/ማቆም 7) ያልተለመደ የድካም ስሜት/የመተንፈስ ችግር 8) ሌላ	
20	ከላይ የተጠቀሱት ከእርግዝና ጋር በተያያዘ ችግር ሲያጋጥም ምን ማድረግ እንዳለብዎትስ ተነግሮታል?	1) አዎ 2) አይደለም 3) አላስታውስም	
21	ለጥያቄ 18 መልስዎ አደለም ከሆነ ከእርግዝና ጋር ተያያዞ ሊከሰቱ ስለሚችሉ ችግሮችስ ሰምተው ያውቃሉ?	1) አዎ 2) አይደለም	መልሱ አይደለም ከሆነ ወደተራ ቁ.23 ይለፉ
22	መልስዎ አዎን ከሆነ ችግሮቹ ምንምንድን ናቸው?	1) የደም መፍሰስ 2) ያልተለመደ የራስ ህመም/ብዝሃ 3) ከፍተኛ የሆነ የሆድ ህመም 4) የፊት፣ እግርና የእጅ ማበጥ 5) ትኩሳት 6) የሽሉ እንቅስቃሴ መቀነስ/ማቆም 7) ያልተለመደ የድካም ስሜት/የመተንፈስ ችግር 8) ሌላ	
23	ከእርግዝና ጋር ተያያዞ ሊከሰቱ ስለሚችሉ ችግሮች ከየት ነው የሰሙት? (የመረጃ ምንጭ)	1) ከመገናኛ ብዙሃን 2) ከጤና ባለሙያ 3) ከጋደኛ/ቤተሰብ/... 5) ከዚህ በፊት ከእርግዝና ጋር በተያያዘ ችግር አጋጥሞት ስለሚያውቅ 6) ሌላ ካለ ይግለጹት -----	
24	ከዚህ በፊት በነበሩ የእርግዝናዎ ወቅት/ቶች ከእርግዝና ጋር በተያያዘ ችግር አጋጥሞት ያውቃል?	1) አዎ 2) አይደለም	መልሱ አይደለም ከሆነ ወደተራ ቁ.25 ይለፉ

25	መልስዎ አዎን ከሆነ ምን አይነት ችግር?	1) የደም መፍሰስ 2) ያልተለመደ የራስ ህመም/ብዝሃ 3) ከፍተኛ የሆነ የሆድ ህመም 4) የፊት፣ እግርና የእጅ ማበጥ 5) ትኩሳት 6) የሽሉ እንቅስቃሴ መቀነስ/ማቆም 7) ያልተለመደ የድካም ስሜት/የመተንፈስ ችግር 8) ሌላ	
26	በአሁኑ እርግዝናዎስ ከእርግዝና ጋር በተያያዘ ችግር አጋጥሞት ያውቃል?	1) አዎ 2) አይደለም	መልሱ አይደለም ከሆነ ወደተራ ቁ.29 ይለፉ
27	መልስዎ አዎን ከሆነ ምን አይነት ችግር?	1) የደም መፍሰስ 2) ያልተለመደ የራስ ህመም/ብዝሃ 3) ከፍተኛ የሆነ የሆድ ህመም 4) የፊት፣ እግርና የእጅ ማበጥ 5) ትኩሳት 6) የሽሉ እንቅስቃሴ መቀነስ/ማቆም 7) ያልተለመደ የድካም ስሜት/የመተንፈስ ችግር 8) ሌላ ካለ ይግለጹ _____	
28	እርግዝና ጋር ተያያዞ የተከሰተው ችግር በምን ያህል ፍጥነት ለዩት?	1) ወዲያውኑ 2) በቀኑ 3) በሳምንት ጊዜ ውስጥ 4) ሌላ ካለ ይግለጹ _____	
29	ችግሩ እንደተከሰተ በወቅቱ ወዲያውኑ እርዳታ ለማግኘት ምን አደረጉ/የት ነበር የሄዱት?	_____	
30	አንዲት ነፍሰጡር ሴት ችግር ሲያጋጥማት ምን ማድረግ ያለባት ይመስሉታል?	1) ችግሩ/ህመሙ ቀለል እስኪሆን መቆየት 2) ቤት ውስጥ እረፍት ማድረግ 3) በፍጥነት ወደ ህክምና አገልግሎት መሄድ 4) ንደኛ/ቤተሰብ ማማከር 5) ሌላ ይግለጹ _____	
31	አንዲት ነፍሰ ጡር ሴት በእርግዝና ጊዜ ሊያጋጥማት ስለሚችሉ ችግሮች ብታውቅ እንዴት ነው ሊጠቅማት የሚችለው?	1) ችግሩን በተሎ እንድትለይና የህክምና አገልግሎት ማግኘት እንዳለባት እንድታውቅ ይረዳታል 2) ራስዎ በራስዎ እንድትጠነቀቅ ይጠቅማል 3) ችግሩ እንዳይፈጠር መከላከል ያስችላታል 4) ምንም/ብዙም አይጠቅምም 5) ሌላ ካለ ይግለጹት _____	

32	ምንም አይጠቅምም ከሉ ለምን ?	1) አንዲት ነፍሰ ጡር ሴት በእርግዝና ጊዜ አንዳንድ ምልክቶች መታየት የተለመደ ስለሆነ 2) የህክምና ክትትል ከላት በቂ ስለሆነ 3) ለክፉ ስለማይሰጥ 4) ሌላ ካለ ይግለጹ -----	
33	አንዲት ነፍሰጡር ሴት በእርግዝና ጊዜ ችግር ቢያጋጥማትና ወደ ህክምና አገልግሎት ብትሄድ ምን ጥቅም ያለው ይመስለዎታል?	1) የእናትየዋ ችግር በጊዜ ሊለይና በተሎ እርዳታ ማግኘት ትችላለች 2) በሽሉ ላይ ያለ ችግር በጊዜ ሊለዩ ስለሚችሉ 3) ችግሩ እንዳባባስ ይረዳል 4) ሌላ ካለ ይግለጹ -----	
34	አንዲት ነፍሰጡር ሴት ለምንድነው ሀኪምን ሳታማክር በራስዋ መድሀኒት መውሰድና ማክም የሌለባት?	1) በጤንነትዋ ላይ ችግር ሊያመጣባት ስለሚችል 2) ሽሉ ላይ ችግር ሊያመጣ ስለሚችል 3) ሌላ ካለ ይግለጹ -----	
35	እርሰዎ የት መውለድ እንዳለብዎ ወስነዋል?	1) አዎ 2) አይደለም	
36	ከወሰኑ የት ለመውለድ ወሰኑ?	1) በመንግስት ጤና ተቋማት 2) በግል ጤና ተቋማት 3) ወደ እናት ቤት መሄድ 4) እቤት በሀኪም እርዳታ መውለድ 5) ሌላ ካለ ይግለጹ -----	

## **Declaration**

I, the undersigned declare that this thesis is my original work in partial fulfillment of the requirement for the degree of Master of Public Health. I also declare that it has never been presented in this or any other university and that all resources and materials used in the thesis have been duly acknowledged.

Student Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Place of submission: \_\_\_\_\_

Date of submission: \_\_\_\_\_

This thesis has been submitted for examination with my approval as a university advisor.

Advisor Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date of submission: \_\_\_\_\_